

REMARKS

Claims 1-3 are pending in the present application. The Examiner rejected the pending claims in a non-final Office Action dated March 5, 2009. Claims 1 and 2 are currently amended. With entry of this Amendment, reexamination and reconsideration are respectfully requested.

A. Telephone interview with Examiner Monikang

Applicants note with appreciation the Examiner's courtesy during the telephone interview of August 12, 2009. During the interview, the Applicants explained claims 1-3 to increase the Examiner's understanding of the claimed subject matter.

B. Claim 1 in view of Ota

The Examiner rejected claim 1 as being anticipated under 35 U.S.C. § 102(b) by Ota et al. (U.S. Patent Pub. No. 2002/0188364 A1). Applicants respectfully submit that the Examiner has failed to appreciate that Ota does not disclose bus selecting controls and channel-ON controls having a display such that the operation of a bus selecting control affects the displays of the channel-ON controls in the recited manner of claim 1. Accordingly, the rejection is respectfully traversed.

1. The claimed invention

Claim 1 is directed to a digital mixer apparatus. The apparatus comprises a plurality of input channels, each arranged to receive a sound signal. The apparatus further comprises a "first bus" and a plurality of "second" buses. The "first bus" may be exemplified, without limitation, in the disclosure as a "main mixing (MIX) [bus] for mixing main sounds to be listened to by an audience." (Applicants' specification, page 4, lines 14-15) The plurality of "second" buses may be exemplified, without limitation, in the disclosure as "auxiliary mixing (AUX) buses for mixing monitoring sounds to be listened by individual performers." (page 4, lines 15-16) Claim 1 has been amended to clarify the invention.

Applicants direct attention to the particular claim elements of (A) the “bus selecting control” and (B) the “displays of said channel-ON controls.” As claimed, particular operation of (A) leads to notable behavior by (B):

a control section that, while any one of said plurality of bus selecting controls is being operated beyond a predetermined time period, causes the displays of said channel-ON controls to *display the send ON/OFF states*, in said send ON/OFF section, of the delivery of the sound signals from the input channels, corresponding to said channel-ON controls, to the second bus corresponding to the one bus selecting control, *instead of displaying the signal ON/OFF states of the input channels*. (Emphasis added.)

In other words, the “displays of said channel-ON controls” have the capability of displaying at least two states: (1) the “signal ON/OFF states” related to the “first bus,” *e.g.*, a MIX bus for an audience, and (2) the “send ON/OFF states” related to a “second bus,” *e.g.*, an AUX bus for an individual performer. That is, there is a shared use of one display for indicating multiple states. As claimed, particular operation of (A) leads to (B) indicating state (2) instead of state (1).

2. The deficiencies of Ota

In contrast, Ota merely discloses displaying signal ON/OFF states via its ON keys 233 and fails to disclose or suggest displaying a value of any other parameter than the signal ON/OFF states. In other words, Ota does not even disclose any display indicating more than one state, as claimed. Accordingly, Ota does not disclose the particular operation of any control leading to any display indicating multiple states.

Specifically, at best, Ota discloses Fig. 5, which may, in the Examiner’s viewpoint, indicate bus selection, and ON keys 233 in Fig. 2, which may, in the Examiner’s viewpoint, display a select/non-select state at paragraph 0040. However, Ota is silent about any causal relationship between any bus selection in Fig. 5 and the display of 233. Furthermore, the display of 233 does not indicate both of the required two claimed states: (1) the “signal ON/OFF states” related to the “first

bus,” e.g., a MIX bus, and (2) the “send ON/OFF states” related to a “second bus,” e.g., an AUX bus.

Accordingly, Applicants respectfully submit that claim 1 is not anticipated by Ota.

C. Claim 2 in view of Ota

The Examiner also rejected claim 2 as being anticipated by Ota. The rejection is respectfully traversed.

1. The claimed invention

Claim 2 has been amended in a similar manner to claim 1 to clarify the invention. Claim 2 differs with respect to claim 1 in its recitation of the control section. When one of the bus selecting controls is operated beyond a predetermined time period *and* one of the channel-ON controls is operated, then the control section changes the send ON/OFF state of the delivery of the sound signal from the input channel, corresponding to the operated channel-ON control, to the second bus corresponding to operated bus selecting control, *instead of changing the signal ON/OFF states of the input channels corresponding to the one channel-ON control.*

Applicants direct attention to the particular claim elements of (A) the “bus selecting control” and (B) the “channel-ON controls.” As claimed, particular operation of (A) leads to notable behavior by (B):

“a control section that, while any one of said plurality of bus selecting controls is being operated beyond a predetermined time period, *changes*, in response to operation of any one of said channel-ON controls, *the send ON/OFF state*, in said send ON/OFF section, of the delivery of the sound signal from the input channel, corresponding to the one channel-ON control, to the second bus corresponding to the one bus selecting control, *instead of changing the signal ON/OFF states of the input channels corresponding to the one channel-ON control.*” (Emphasis added.)

In other words, the “channel-ON controls” have the capability of changing at least two states: (1) the “signal ON/OFF states” related to the “first bus,” *e.g.*, a MIX bus for an audience, and (2) the “send ON/OFF states” related to a “second bus,” *e.g.*, an AUX bus for an individual performer. That is, there is a shared use of one control for changing multiple states. As claimed, particular operation of (A) leads to (B) changing state (2) instead of state (1).

2. The deficiencies of Ota

In contrast, Ota merely discloses changing signal ON/OFF states via its ON keys 233 and fails to disclose or suggest changing a value of any other parameter than the signal ON/OFF states. In other words, Ota does not even disclose any control changing more than one state, as claimed. Accordingly, Ota does not disclose the particular operation of any control leading to another control changing multiple states.

Specifically, at best, Ota discloses Fig. 5, which may, in the Examiner’s viewpoint, indicate bus selection, and ON keys 233 in Fig. 2, which may, in the Examiner’s viewpoint, change a select/non-select state at paragraph 0040. However, Ota is silent about any causal relationship between any bus selection in Fig. 5 and the state change function of 233. Furthermore, the 233 does not change both of the required two claimed states: (1) the “signal ON/OFF states” related to the “first bus,” *e.g.*, a MIX bus, and (2) the “send ON/OFF states” related to a “second bus,” *e.g.*, an AUX bus.

Accordingly, Applicants respectfully submit that claim 2 is not anticipated by Ota.

D. Claim 3 in view of the combination of Suyama and Craig

The Examiner rejected claim 3 under § 103(a) as being unpatentable over Suyama et al. (U.S. Patent Pub. No. 2002/0156547 A1) in view of Craig (U.S. Patent Pub. No. 2002/0107592 A1). The rejection is respectfully traversed.

1. The claimed invention

Claim 3 is directed to a digital mixer apparatus. It recites a plurality of layer controls “provided in one-to-one corresponding relation to a plurality of layers provided by dividing said plurality of input channels into groups. . . .” The apparatus further comprises a plurality of bus selecting controls.

The apparatus further comprises a predetermined number of “first” level controls and a predetermined number of “second” level controls.

Applicants direct attention to the particular claim elements of (A) the “bus selecting controls” and (B) the “layer controls.” As claimed, simultaneous operation of (A) and (B) leads to a copying function:

“a control section that, in response to operation of any one of said plurality of *bus selecting controls during* continued operation of any one of said plurality of *layer controls, copies*, the second delivery levels of the signals to be delivered from the predetermined number of the input channels to said second bus corresponding to the one bus selecting control, from the first delivery levels, set via said first level controls, of the signals to be delivered from the predetermined number of the input channels, corresponding to the one layer control, to said first bus.” (Emphasis added.)

In other words, (A) the “bus selecting controls” already have a defined function of bus selecting, and (B) the “layer controls” already have a defined function of layer selecting. Copying is effected in response to simultaneous operation of (A) and (B). (A) and (B) differ from each other in function.

2. The deficiencies of the combination of Suyama and Craig

The Examiner relied on Craig to teach the claim recitation of the “control section” with the copy recitation, Fig. 3 and paragraph 0039. These portions of Craig refer to keys 310 in Fig. 3: “Keys 310...are used for various additional channel selection and processing, such as swapping or copying and pasting channels, for example.” However, these teachings of Craig do not sufficiently teach or suggest the claimed “control section.” The combination of Suyama and Craig does not

teach or suggest at least the claimed simultaneous operation of two types of controls. The combination of Suyama and Craig does not teach or suggest that these types of control differ from each other in function. Furthermore, the combination of Suyama and Craig does not teach or suggest that these controls already have specifically assigned functions apart from copying.

Accordingly, Applicants respectfully submit that claim 3 is not obvious under the combination of Suyama and Craig.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicants request that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5479 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing Docket No. 393032044100.

Dated: September 8, 2009

Respectfully submitted

By 

David S. Kim

Registration No.: 57,143
MORRISON & FOERSTER LLP
555 West Fifth Street, Suite 3500
Los Angeles, California 90013
(213) 892-5479